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THE SOUTHERN LIMIT OF INLAID AND INCRUSTED WORK IN ANCIENT AMERICA

By T. A. JOYCE

The entire question of inlaid and incrustated work in America is interesting, especially if the geographical limits within which the art was practised be considered. The incrustated turquoise objects of ancient Mexico, of which remarkable specimens are treasured in several museums, notably the British Museum, are too well known to need more than passing mention. The northern limit of such work was probably in Arizona and New Mexico. Various examples recovered from ancient ruins in those territories are now preserved in American collections.¹

Inlaid work was also practised in the Antilles, as is known from examples in the British Museum. These are three remarkable wooden figures found in a cave in Jamaica in 1792. Two of them have a white shell inlay representing the teeth, and all of them have hollow eye-sockets, still containing a thick layer of resinous substance which evidently served as the matrix for inlay of shell or other material representing the eyes.²

It is with the object of attempting to fix the southern limit of this class of work that I wish to place on record two interesting specimens, now in the British Museum, from Peru. The first is a bone implement, possibly a dagger or a "scraper," inlaid with turquoise and pyrites; the second a wooden object of uncertain nature incrustated with shell and a mineral resembling turquoise.

Of the first the inlaid work is subsidiary to an engraved ornament, of which it emphasizes certain details; this engraved ornament shows great skill, the certainty and purity of line being equal to the best products of ancient Peruvian art.

¹ See Fewkes in *Twenty-second Ann. Rep. Bureau Am. Ethnology*, 1903, also Pepper in *American Anthropologist*, VII, no. 2, 1905.

² Fewkes in *Twenty-fifth Ann. Rep. Bureau Am. Ethnology*, 1907, p. 216. "The Porto Ricans made wooden seats in the form of animals, and inlaid the eyeballs and shoulders with shell. So do the tribes of the Orinoco today."

The dagger (fig. 13) has been fashioned from a long mammalian bone, of which the condylar extremity has been carved to represent a left human fist closed, the thumb bent across the first joint of the fore-finger and resting on that of the second, which is raised above the level of the rest. The remainder of the bone represents the forearm as far as a point about 2 cm. above the elbow; here the bone has been split longitudinally, and the part corresponding to the upper surface of the arm removed; by this means a long flat blade, the extremity of which is now broken, has been formed.

The ornamentation—engraving and inlay—is confined to the “handle” as opposed to the “blade” of the weapon, and is distributed as follows: Longitudinally down the back of the hand run four panels of engraving; transversely across the back of the arm between wrist and a point just below the elbow, three panels; above the last on the back of the arm, three chevron-shaped panels, the line joining their vertices being at right angles to the major axis of the weapon. Along the under surface of the arm and the thumb are disposed irregularly a number of anthropomorphic figures: one along the thumb from the first joint to the wrist; a group of three from wrist to a point 16 mm. below the elbow; and one, the largest, occupying the under surface of the arm from here as far as 2 cm. above the elbow. Engraved ornament also appears on the finger-joints.

To deal with the series of panels in de-

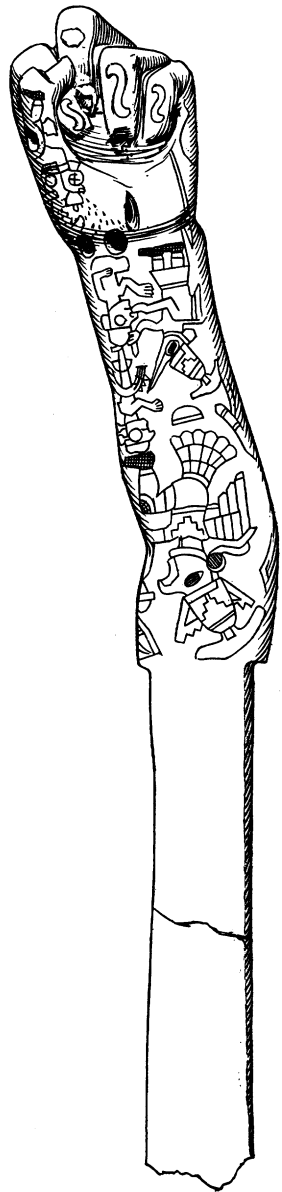


FIG. 13.—Incrusted and engraved dagger from Peru ($\frac{3}{4}$ natural size).



FIG. 13a. —The ornamentation of the incrustated and engraved dagger (natural size).

tail: holding the dagger handle downward, the back of the arm toward the observer, the first panel on the left on the back of the hand contains an engraved design which appears to represent a trophy of arms—a shield, a stone-headed club, and two spears. Similar “trophies” are found occasionally painted on the red pottery. The next panel to the right contains a conventional bird design with three repeats, the next two quadrupeds, probably jaguars, and the last a grotesque serpent. It may be noticed that each of the two quadrupeds appears to have a spear fixed in its back.

The lowest transverse panel is filled with a running curvilinear conventional design, which appears in a more elaborate form in the next panel above. In the panel above this is engraved a more

elaborate scene: a small human figure, head to left, with hands bound behind him, is seated between two conventional jaguars which face inward; a cactus plant appears over the back of each.

Of the chevron-shaped panels, that on the left contains two representations of the "trophy-like" object mentioned above; that in the center two conventional jaguars (?); that on the right a modification of the bird design mentioned as forming the ornamentation of the second panel described. In this case the heads of the birds have disappeared, and were it not for the presence of the former panel, it would be impossible to guess the origin of the design in the latter.

Of the anthropomorphic figures on the under surface of the arm, that on the thumb represents a man standing, head to right. On his head he wears a helmet with the characteristic Chimú crest, and a long plume in front; he wears a discoid earplug and a semilunar nose ornament. His right arm is raised and grasps what appears to be a rattle; the meaning of a number of small incisions around and above the last is obscure. In his left hand he holds a circular disc, and at his waist are slung a circular shield—similar to those seen in the "trophies"—and a sword. He appears to wear stockings with a circular ornament at the knees, and shoes.

Above this is a group of three figures; one on the left, standing, with head to right, wears a helmet with the Chimú crest and a bird mask with long beak; on his back are wings, and he wears a skirted tunic with a belt at the waist, and shoes. His arms are extended, and he holds by the head a figure seated facing him, wearing a round close-fitting cap, who stretches out his right arm. Immediately above this figure, in fact appearing to rest on his head, is a third, the bust of a man facing left with round cap, left arm outstretched; below the waist the figure terminates in a kind of spike; at the waist is a horseshoe-like object with pendant ends, which may represent fillets. The face of the first figure is raised toward this last individual, and it seems possible that the whole scene may represent a sacrifice performed by a priest in ceremonial garb before the figure of a god.

The last and largest figure is a man in a sitting position, head to right; on his head is a helmet with Chimú crest and decorative

ittings; he wears ear ornaments, a bird-mask, wings, and a tail. On his legs, apparently, are stockings from thigh to ankle, with circular ornament on the knees, and shoes on his feet. Only one arm is shown: this is stretched out and bent up at the elbow; in the hand is grasped a stone-headed club, similar to those shown in the "trophies," of a type which is frequently depicted on the red pottery in the hands of masked warriors.

On the third joints of the fingers, which form the upper surface of the "butt" of the implement, are engraved "trophies" similar to those already mentioned; that on the second finger is worthy of especial remark, since the head of the club is represented by a single lump of turquoise inlay, and affords the only instance in which a fragment of inlay has been cut to a definite shape, other than circular, as part of the design. A similar "trophy" appears on the second joint of the same finger, the corresponding joint of the other fingers bearing merely a sort of "pothook" design engraved. The two "trophies" on the second finger are further distinguished by the fact that the centers of the shields are represented by fragments of pyrites.

The inlaid ornament, other than that already mentioned incidentally, is distributed as follows: A fragment of blue turquoise is set to represent the eye and ear ornament (where present) of each anthropo- and therio-morphic figure; and the centers of each shield, whether carried by an individual or set in a "trophy" (except in the case of the two shields indicated above, where the material is pyrites).

Similar fragments of turquoise are set in the detached circles which appear in the two transverse bands of curvilinear conventional ornament on the back of the arm, and on the back of the hand just below the little finger. The nails of the fingers were also represented by inlay, but the material has unfortunately disappeared. Except in the case of the fingernails, and the head of the club and centers of the shields on the second finger, the cavities in which the inlay is set are more or less circular, and appear to have been made by means of a rotary drill with a blunt, rounded point.

The fragments of inlay have been fixed in these cavities by

means of some resinous material, traces of which are to be seen in some of the holes whence the inlay has dropped.

On the wrist at the root of the thumb are two holes, side by side, which communicate with the inner cavity of the bone. These show no traces of having been inlaid, and their sides are parallel and unsuitable for the purpose. It seems possible that they may have served as passages for a suspension cord.

The implement was acquired with other objects in 1893 from a Mr Batchelor who obtained it from a grave in the Santa valley, on the border line between the provinces of La Libertad and Ancachs.

The second specimen, of incrustated work, has been acquired quite recently (1906) by the British Museum and consists of a flat wooden knob, diameter 45 mm., with seven rectangular projections cut from the solid and disposed at equal distances around the edge (fig. 14). These projections stand out in relief not only laterally, but also above and below. On the under side a cavity 30 mm. in diameter has been hollowed out to a depth of 10 mm. The upper surface



FIG. 14.—Incrusted wooden knob from Peru, showing double-bird design.

has been plastered with a thick layer of some resinous material, to the height of the projections mentioned above, which form a sort of broken containing rim. In this resinous matrix has been set a mosaic of shell, of which only the center portion, diameter 28 mm., remains. The design, a conventional double bird, cut out of a single piece of pearl shell, stands out against a background of pieces of red and purple shell. The eyes of the birds are formed of fragments of blue-green mineral, very like turquoise in appearance.

The mosaic is part of a large collection, formed during a period of more than twenty years by Dr de Bolivar in the provinces of Lambayeque, La Libertad, and Ancachs, the majority of the objects coming from graves in the Pacasmayo valley. The collection affords many instances of this double-bird design, particularly among the textile fabrics, one of which is reproduced herewith (fig. 15).

Both the specimens described above, therefore, come from approximately the same area.

But another, and perhaps more interesting, question is raised by these two specimens of turquoise mosaic work, and that is the question as to the locality whence the turquoise was obtained. The fact that turquoise has not been discovered in Peru led to the raising of



FIG. 15.—Fabric from Peru showing double-bird design.

doubts as to whether the mineral was true turquoise or some silicate of copper such as chrysocolla. A small fragment of the inlay of the bone dagger which had become detached was therefore submitted for analysis to Dr G. T. Prior, of the mineralogical department of the British Museum, who has definitely pronounced it to be turquoise. Whence therefore did it come? Is it possible that it filtered down from Los Cerillos, near Santa Fé in New Mexico, whence the ancient Mexicans almost undoubtedly obtained their supply? Or

are there deposits of turquoise which still await discovery, or rather rediscovery, in the interior of South America? In view of the fact that there is no evidence of the slightest connection between the cultures of Peru and Mexico it must be admitted that the latter is the more probable hypothesis. In either case the question is one of great interest, and it can only be hoped that the advance in knowledge of the mineralogy of the southern continent may soon supply the answer. Meanwhile the author would be grateful to receive in published form or privately any evidence bearing on these two points; i. e. the southern limits of inlaid and incrustated work in America, and the presence or the reverse of turquoise deposits within or near the limits of the culture-area of ancient Peru.

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